namely *Sphagnaceæ*, *Andreæaceæ*, and *Bryaceæ*, including here *Archidium*. The Bryales fall into the two groups of *Acrocarpi* and *Pleurocarpi*. His 135 genera are included under 27 families.

The special part begins with page 50. The Sphagna are most exhaustively treated. There are diagnostic keys for his six "groups" and for the species under each group. Under *Bryaceæ* only the larger families, and the larger genera, have such keys to their respective subdivisions. The chief task of the author is the record, under each species, of its geographic and geognostic occurrence.

The whole is the work of a lover of Nature, and of a keen observer and untiring worker. In his analysis of this moss flora, in part one, the author compares his area with the outlying regions, recording species that persisted since the Ice Age, those that came in from the South, the West, the North, and the East: thus giving an exhaustive view of the epochal movements of these interesting organisms since geological time.

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WINONA, MINNESOTA.

SHORTER NOTES

All students of lichens will be interested in the article[1] by Dr. Bernt Lynge, which starts publication in the last issue of the Nyt Magazin to come to hand. Realizing the great value of accurately determined specimens in the case of Lichens, plants that differ in many cases but slightly, and the difficulty of putting such differences into words, Dr. Lynge has long had in preparation an index of the various published collections. There are considerably more than a hundred known exsiccati that contain Lichen material wholly or in part, and the present work attempts an exhaustive catalogue. This is to be in two parts; the first containing a list of the exsiccati under the respective authors; the second, an alphabetic index of all species and varieties. In the present instalment Dr. Lynge makes a beginning of the first part, listing Anzi to Britzelmayr. With each citation is given the complete title of the series, the date, number of specimens, bibliographical references, and a complete list with numbers of the material comprised in the work. E. B. C.

In two of the recent issues of Broteria M. Luisier,[2] the veteran bryologist, contributes under the title "Fragments de bryologie ibérique," several short notes. These comprise the following: Description, with two figures, of *Desmatodon meridionalis n. sp.* from South Portugal, a minute plant apparently related to *D. cernuus;* Note upon the distribution of *Triquetrella arapilensis*, recording two additional localities for this species, a representative of a genus previously considered as belonging exclusively to the southern hemisphere; Description, with a

[1] Index Specierum et Varietatum Lichenum, quae collectionibus "Lichenes Exsiccati" distributae sunt. B. Lynge, Nyt Magazin for Videnskaberne, Bd. **53**: Hefte 3–4 ; 1–112. (1915).

[2] Fragments de Bryologie Ibérique. A. Luisier. Broteria. **13**: Fasc. 2, 3. 149–153. (Dec. 1915). **14**: Fasc. 1. 5–24. (April, 1916.).

fine figure, of *Brachymenium lusitanicum* (Luis.) Hag. *n. sp.*, a representative of a tropical genus that forms an interesting addition to the number of outliers which have been discovered in Europe within the past decade; Notes upon nine species that are new to the moss flora of Spain.

In the last issue of Broteria, Father Luisier continues these notes. The first note describes and figures a new and remarkable species of *Andreaea*, *A. crassifolia* Luis., which seems to have its affinities with the species of the Southern Hemisphere belonging to the Section *Enerviae* of the Subgenus *Euandreaea*. A very detailed description of the plants is given, two localities, one Spanish, the other Portuguese, and a plate of the details of a fruiting plant. The remainder of Father Luisier's article deals with a list of Spanish or Portuguese localities for nearly ninety species of Acrocarps (the Pleurocarps will follow in the next issue) representing the "débris" as the author puts it, saved from his extensive collections and those at the Collège de Campolida when the latter was ransacked at the founding of the Republic. The greater part of the list is merely a catalogue of localities with a few notes upon relative abundance, but more extended mention is made of *Tortula Solmsii* (Schimp.) Roth, *Fissidens serrulatus* Brid., *Grimmia trichophylla* Grev., var *Lisae* (de Not.) Bottini, *Rhacomitrium aciculare* (L.) Brid., *Rh. microcarpon* Brid., and *Philonotis calcarea*. *Aulacomnium palustre* (L.) Schwaegr. var. *cincinnatulum* Luis., is described as new. E. B. C.

Hepaticae Presented to the New York Botanical Garden by Miss Haynes.—We learn from the Journal of the New York Botanical Garden that in connection with the Twentieth Anniversary Celebration of the New York Botanical Garden, Miss Caroline Coventry Haynes presented to that institution the collection of Hepaticae which she had purchased from Dr. M. A. Howe in 1909. The collection contained much European material and was especially rich in Californian species, including most of the specimens cited in Dr. Howe's "The Hepaticae and Anthocerotales of California." The collection included altogether about 1850 pockets. O. E. J.

In the February number of the Bulletin of the Torrey Botanical Club (**43**: 63–81. *Pl. 1.*) under the title, "New and Rare African Mosses from Mitten's Herbarium," Mr. H. N. Dixon describes ten new species from various parts of Africa, ranging from Kilimanjaro to the Cape. There are also notes, critical or descriptive, upon twenty other species, and one new combination. A new section, *Gymno-ischryodon*, is proposed in *Fabronia*. All but one of the new species are illustrated in the accompaning plate. E. B. C.

In the March issue of Torreya (**16**: 67–70. *fig. 1.*) Dr. Evans describes and figures *Metzgeria grandiflora*, a new species from the Galapagos Islands. According to a note by the author this is the first species of the *Metzgeriaceae* to be reported from the islands. E. B. C.

An interesting paper on "Ceylonese Mosses" appeared in the Journal of Botany, Sept.–Oct., 1915, by Mr. H. N. Dixon, this being an account of a collection of over 400 numbers secured by the Rev. C. H. Binstead during February

and March, 1913. The list includes Latin descriptions and notes in English for the following new species: *Dicranodontium sparsum* Dixon, *Fissidens aberrans* Broth. & Dixon, *Macromitrium assimile* Broth. & Dixon, *Bryum ceylonense* Broth. & Dixon, *Camptochaete* (?) *thamnioides* Broth. & Dixon, *Acanthocladium ceylonense* Broth. & Dixon, *Taxithelium Binsteadii* Broth. & Dixon, *T. isopterygioides* Dixon, and *Vesicularia caloblasta* Broth. & Dixon. The article is accompanied by a plate including figures of all but one of the new species, and there are included in the paper characterizations of two new varieties. Critical notes are given on the characters or as to the synonymy of many of the species listed. The article has been repaged in reprinting and there is no statement of its original paging or the number of the volume in which the article apeared—these omissions being likely to cause trouble in citation. O. E. J.

Mr. H. N. Dixon contributes to the Journal of Botany (**53**: 16–23. Jan., 1915) "Miscellanea Bryologica—IV," in which he discusses critically some Australasian species of *Breutelia*, concluding finally that *Breutelia pendula* (Hook.) Mitt. is highly variable and includes in its synonymy five specific and six generic names. *B. fusco-aurea* Broth. is regarded as probably synonymous with *B. Sieberi* (Hornsch.) Mitt. *Microthamnium cavefolium* (Rehm.) Dixon is described as a new species from South Africa; *M. cygnicollum* (Hampe) C. M. is described for the first time, the name cited by Paris in the Index being a herbarium name only; *Neckera Hoehneliana* C. M. is found to be distinct from *N. Hoehnelii* C. M., the two being confused in the Paris Index, ed. 2, so that *N. Hoehneliana* C. M. stands as a good species while the other plant belongs to another genus and should be called *Renauldia Hoehnelii* (C. M.) Broth.
O. E. J.

With the May issue of Torreya the publication of "Common Mosses According to Habitat"[1] is brought to a close. The three articles deal with about a hundred mosses common to the region about New York City. There are a few introductory pages of general description and an explanation of the use of the keys, after which the acrocarpous mosses are classified into five arbitrary habitat-groups. Each group is then keyed out to genera or species by characters drawn from calyptra, shape of capsule, and structure of the leaves. Following this is an alphabetic list with brief descriptions, but no authorities, of the various species. The pleurocarpous mosses are then treated in a similar manner. A maturity table, resume of the habitat groups, glossary, and final list of all species mentioned, completes the series of articles. E. B. C.

Dr. Evans has again brought up to date the various new discoveries in the hepatic flora of New England,[2] but as usual the extensive notes apply to a far

[1] Daisy J. Levy. Common Mosses According to Habitat. Torreya. **16**: 55–67, 80–91, 103–115. *figs. 1–5.* (1916).

[2] A. W. Evans. Notes on the New England Hepaticae,—XIII. Rhodora **18**: 74–85, 103–119. *figs. 1–40.* (1916).

wider territory. The article deals specifically with the five species, *Scapania Oakesii* Aust., *S. paludicola* Loeske & K. Müll., *Porella pinnata* L., *P. platyphylla* (L.) Lindb., and *P. platyphylloidea* (Schwein.) Lindb., but there is much incidental discussion of other species of the genera. Figures are given of all the species of *Porella* discussed. E. B. C.

In a recent article,[1] based mainly upon collections made by the members of the New York Botanical Garden, Dr. Riddle brings up to date our knowledge of the lichen flora of Bermuda, more than tripling the number of forms previously known. For completeness, reference is made to all previous reports and collections. Eighty six species and varieties are listed, of which almost eleven per cent are endemic. Seven new species, one new variety, and two new forms are described, and five new combinations made. E. B. C.

Two collections of mosses frcm Peru have recently been studied by Mr. Williams.[2] The list cites in most cases merely the specific name with data of the specimens, but critical notes are given in some cases. Seventy-one species and varieties are noted, of which seven are proposed as new, all being figured in the accompaning plates. One new combination is made. E. B. C.

Our attention has been called by a recent note from Dr. A. LeRoy Andrews to the death of Dr. Georg Roth which, according to Hedwiga, took place December 5, 1915, in his seventy-fourth year. O. E. J.

MEETING OF THE SULLIVANT MOSS SOCIETY

As previously announced, there will be a meeting of the Moss Society in New York during the Christmas vacation, 1916, in connection with the American Association for the Advancement of Science. The probable date is December 27th or 28th, and it is expected that the meeting will be at Columbia University. A later notice will be sent to each member.

BUT, do not wait for invitation: plan to come, and plan to contribute to the program or to the exhibits. And, if attendance is impossible, send material for exhibition purposes, short notes, and help things along. The Secretary cannot send a personal appeal to everyone, but relies on voluntary contributions. Those who plan to come or to contribute are requested to send notice to Mr. Chamberlain as soon as practicable, so that proper accommodations for all may be assured. Further notice will appear in the Bryologist, and will be sent by mail.

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[1] Lincoln W. Riddle. The Lichens of Bermuda. Bull. Torr. Club. **43**: 145–160. (1916).
[2] R. S. Williams. Peruvian Mosses. Bull. Torr. Club. **44**: 323–334. *Pls. 17–20.* (1916).